

Abstracts

A15

Program beneficiaries. The sample contains 5000 diabetes patients who were continuously eligible for Medicaid benefit and FAHS for at least 2 years. Medication adherence was measured with the Medication Possession Ratio (MPR) for diabetes-specific prescriptions, statins, and ACEs/ARBs. MPR was calculated separately for the first 12 months (baseline) and the following 12 months (follow-up). Costs were similarly summed over the 12 month intervals of baseline and follow-up. Estimation was performed with first-difference and conditional logistic regressions. **RESULTS:** Improvement in MPR between baseline and follow-up was reflected in lower inpatient, emergency room (ER), and total non-drug costs. A 10% improvement in MPR for hypoglycemic medications reduced inpatient costs by \$127.97 ($p = 0.002$), ER costs by \$3.72 ($p = 0.003$), and total non-drug costs by \$116.00 ($p = 0.009$) over 12 months. This reduction in inpatient costs was the result of a shorter average length of stay: a decrease of 0.2 ($p = 0.03$) day per 10% increase in MPR. Finally, a 10% improvement in adherence with statins reduced the probability of being hospitalized by 4.3% ($p = 0.01$). **CONCLUSION:** This research demonstrates the existence of significant short-term savings related to the improvement of medication adherence among persons with diabetes.

AC2

PATTERNS OF DIABETES MEDICATION AND TEST ADHERENCE IN A MEDICAID DISEASE MANAGEMENT PROGRAM

Demand M, Gutierrez PR, Thiebaud P

Pfizer Health Solutions, New York, NY, USA

OBJECTIVE: The failure to maintain adherence to recommended medication and testing regimens is associated with excess morbidity and mortality among diabetics. This presentation focuses on the adherence patterns of diabetics enrolled in Florida: A Healthy State (FAHS), a Medicaid disease management program. **METHODS:** Attention is given to the baseline characteristics of program participants, and the association between them and baseline adherence to hypoglycemic agents, ACEI, ARB, Statins, and annual tests (HbA1C, lipids, microalbumin, retinal exam). A matched-group comparison examined changes in patterns of medication and test adherence at follow-up for those enrolled in the nurse care management module. **RESULTS:** A total of 8432 diabetic adults were continuously enrolled for 24 months. Multivariate models evaluating their baseline adherence to hypoglycemics, ACEI, ARB, Statins and recommended tests were fit. Those who were adherent to one class of diabetes-related medication were 1.5 to 3.5 times more likely to be adherent to another class of diabetes-related medication. Baseline adherence to recommended tests was associated with 50% greater odds of adherence to hypoglycemics, ACEI and Statin. The profile of the 2597 (31%) moderate and high risk participants that enrolled in the nurse care management module was significantly different than that of non-enrollees. Participants had more comorbidities, greater service utilization and costs, and lower medication and test adherence. In a matched-group comparison, nurse care management was associated with improved odds of: filling at least one script during the study period among those who were not using diabetes medications at baseline, adherence to insulin among those using diabetes medications at baseline, and adherence to recommended testing. **CONCLUSION:** A pattern of overall adherence behavior was observed at baseline. Participation in nurse care management improved adherence to recommended diabetes medication and testing regimens. It is believed that these results can be generalized to other Medicaid populations.

DEPRESSIVE SYMPTOMATOLOGY, MEDICATION PERSISTENCE, AND ASSOCIATED HEALTH CARE COSTS IN OLDER ADULTS WITH INSOMNIA

Kulkarni AS¹, Patel J², Anderson RT³, Balkrishnan R¹

¹The Ohio State University College of Pharmacy, Columbus, OH, USA, ²The Ohio State University, Columbus, OH, USA, ³Wake Forest University School of Medicine, Winston Salem, NC, USA

OBJECTIVE: The effect of insomnia along with the decreased cognitive functioning associated with aging is a serious concern within the elderly (65 years and older) population. We examined the association of patient health care utilization and depressive symptomatology with medication adherence in insomnia in Medicare-HMO enrolled elderly patients. **METHODS:** This was a retrospective, longitudinal cohort study which included elderly patients (65 and older) enrolled continuously for 1–5 years in the Medicare HMO. Medication possession ratio was used to estimate the adherence in insomnia medication. Different MPR thresholds (0.8, 0.6, 0.4 and 0.2) were used to determine non adherence. Associations between depressive symptoms, medication adherence and health care costs were assessed using ordinary least square multiple regressions. **RESULTS:** A total of 2068 patients with a primary diagnosis of insomnia were included in the study. Sixty percent of these patients had depressive symptomatology. The severity of comorbidity (Charlson index) was 4 and the patient perception of quality of life (Short Form-12 scores) were between 79 and 82. The prevalence of non adherence was 70% even with a low MPR of 0.2. Insomnia patients with depressive symptoms were 92% less likely to be adherent to their insomnia medications ($p < 0.05$). After controlling other variables, we found MPR was a good predictor of total health care costs (10% increases in MPR for every 2% decrease in total health care costs, $p < 0.001$). **CONCLUSION:** We found strong associations between depressive symptomatology, medication adherence, and health care costs in elderly patients with insomnia. Disease and risk management programs in managed care settings should be used to optimize the medication adherence in the elderly.

AC4

THE COST OF NON-ADHERENCE TO ASTHMA TREATMENT GUIDELINES AMONG A LOW-INCOME COHORT

Said Q¹, Waitzman NJ²

¹University of Arkansas for Medical Sciences, Little Rock, AR, USA,

²University of Utah, Salt Lake City, UT, USA

OBJECTIVE: Investigate the effects of non-adherence by providers to the National Institutes of Health treatment guidelines on the costs of care for children and adults with asthma. The Guidelines recommend providing access to rescue medications but restricting their overuse through controller medications. **METHODS:** Pediatric (6–19 years) and adult (20–64 years) patients with a prescription for an albuterol inhaler (AI) or an inhaled corticosteroid (ICS) and a diagnosis for asthma between January 1, 2001 and December 31, 2005 were identified from the Utah Medicaid population. Patients were observed for ninety days following the first prescription and classified into three groups on the basis of AI use and ICS prescription, as following: 1) less than three canisters of AI (appropriate); 2) three or more canisters of AI (inappropriate); 3) no AI use but a prescription for ICS (inappropriate). Once categorized as adherent (group 1) or non-adherent (groups 2, 3), direct medical costs were estimated for children and adults for one year using generalized linear two-part regression models adjusting for demographics, comorbidities, smoking status, seasonal effects and year. **RESULTS:** Of the final sample ($N = 4751$), children comprised 40.4%